

To seek Matrix Benefits, a representative claimant⁴ must first submit a completed Green Form to the Trust. The Green Form consists of three parts. The representative claimant completes Part I of the Green Form. Part II is completed by an attesting physician, who must answer a series of questions concerning the Diet Drug Recipient's medical conditions that correlate to the Matrix criteria set forth in the Settlement Agreement. Finally, if the representative claimant is represented by an attorney, the attorney must complete Part III.

In April, 2004, Ms. Alexander, the legal representative of the Estate, submitted a completed Green Form to the Trust signed by the attesting physician, Steven J. Mattleman, M.D.⁵

3. (...continued)

Recipients for compensation purposes based upon the severity of their medical conditions, their ages when they are diagnosed, and the presence of other medical conditions that also may have caused or contributed to the Diet Drug Recipient's valvular heart disease ("VHD"). See Settlement Agreement §§ IV.B.2.b. & IV.B.2.d.(1)-(2). Matrix A-1 describes the compensation available to representative claimants where the Diet Drug Recipients were diagnosed with serious VHD, they took the drugs for 61 days or longer, and they did not have any of the alternative causes of VHD that made the B matrices applicable. In contrast, Matrix B-1 outlines the compensation available to representative claimants where the Diet Drug Recipients were registered as having only mild mitral regurgitation by the close of the Screening Period, they took the drugs for 60 days or less, or they were diagnosed with conditions that would make it difficult for them to prove that their VHD was caused solely by the use of these Diet Drugs.

4. Under the Settlement Agreement, representative claimants include estates, administrators, or other legal representatives, heirs, or beneficiaries. See Settlement Agreement § II.B.

5. The Estate has submitted a number of Green Forms in pursuit
(continued...)

Based on an echocardiogram dated April 20, 2001, Dr. Mattleman attested in Part II of claimant's Green Form that Mr. Alexander suffered from moderate mitral regurgitation, an abnormal left atrial dimension, and a reduced ejection fraction in the range of 50% to 60%.⁶ Based on such findings, claimant would be entitled to Matrix A-1, Level II benefits.⁷

In the report of decedent's echocardiogram, the reviewing cardiologist, Ted P. Bronson, M.D., stated that Mr. Alexander had "[m]ild mitral regurgitation." Dr. Bronson, however, did not specify a percentage as to claimant's level of mitral regurgitation.⁸ Under the Settlement Agreement, moderate

5. (...continued)
of Matrix Benefits. The April, 2004 Green Form, however, is the only Green Form at issue in these proceedings. See Pretrial Order ("PTO") No. 8509 (July 29, 2010).

6. Dr. Mattleman also attested that Mr. Alexander had surgery to repair or replace the aortic and/or mitral valve(s) following the use of Pondimin[®] and/or Redux[™] and suffered from New York Heart Association Functional Class II symptoms. These conditions are not at issue in this claim.

7. Under the Settlement Agreement, a claimant is entitled to Level II benefits for damage to the mitral valve if he or she is diagnosed with moderate or severe mitral regurgitation and one of five complicating factors delineated in the Settlement Agreement. See Settlement Agreement § IV.B.2.c.(2)(b). As the Trust does not contest the attesting physician's finding of an abnormal left atrial dimension, which is one of the complicating factors needed to qualify for a Level II claim, the only issue is claimant's level of mitral regurgitation.

8. Claimant also submitted an echocardiogram report prepared in February, 2004 by Dr. Mattleman based on the April 20, 2001 echocardiogram. In this report, Dr. Mattleman stated that claimant had moderate mitral regurgitation. He also did not specify a percentage as to claimant's level of mitral

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or greater mitral regurgitation is present where the Regurgitant Jet Area ("RJA") in any apical view is equal to or greater than 20% of the Left Atrial Area ("LAA"). See Settlement Agreement § I.22.

In August, 2010, the Trust forwarded the claim for review by Zuyue Wang, M.D., F.A.C.C., one of its auditing cardiologists. In audit, Dr. Wang concluded that there was no reasonable medical basis for the attesting physician's finding of moderate mitral regurgitation because the echocardiogram demonstrated only mild mitral regurgitation. In support of this conclusion, Dr. Wang explained, "The RJA encircled should not include the area of low velocity flow. The RJA/LAA ratio was 5%."

Based on the auditing cardiologist's finding that Mr. Alexander had mild mitral regurgitation, the Trust issued a post-audit determination denying the Estate's claim. Pursuant to the Rules for the Audit of Matrix Compensation Claims ("Audit Rules"), the Estate contested this adverse determination.⁹ In contest, the Estate argued that the April 20, 2001 echocardiogram was not evaluable. The Estate asserted, however, that an

8. (...continued)
regurgitation.

9. Claims placed into audit on or before December 1, 2002 are governed by the Policies and Procedures for Audit and Disposition of Matrix Compensation Claims in Audit, as approved in PTO No. 2457 (May 31, 2002). Claims placed into audit after December 1, 2002 are governed by the Audit Rules, as approved in PTO No. 2807 (Mar. 26, 2003). There is no dispute that the Audit Rules contained in PTO No. 2807 apply to the Estate's claim.

April 11, 2002 echocardiogram provided a reasonable medical basis for Dr. Mattleman's representation of moderate mitral regurgitation. In support, the Estate submitted declarations of Paul W. Dlabal, M.D., F.A.C.P., F.A.C.C., F.A.H.A.; Michael E. Staab, M.D., F.A.C.C.; and Leon J. Frazin, M.D., F.A.C.C.¹⁰ Dr. Dlabal stated, in pertinent part, that:

4. Based upon my review of the 04/11/02 echocardiogram, I found moderate mitral regurgitation with RJA/LAA ratios of 31.8% ($9.9 \text{ cm}^2/31.1 \text{ cm}^2$) and 34.4% ($10.7 \text{ cm}^2/31.1 \text{ cm}^2$). The first ratio was found at 6 minutes and 24 seconds into the CD, and the second ratio was found at 7 minutes and 23 seconds into the CD.

5. The jets that I identified as showing moderate mitral regurgitation were representative of the level of regurgitation seen throughout the echocardiogram study, and they represented true regurgitation at the level specified.

Dr. Staab stated, in pertinent part, that:

4. On the 04/11/02 echocardiogram, I found moderate mitral regurgitation with a RJA/LAA ratio of 24.69453% ($7.68 \text{ cm}^2/31.1 \text{ cm}^2$). This ratio was found at time 0:20:50 on the echocardiogram CD....

5. This jet that I identified as showing moderate mitral regurgitation was representative of the level of regurgitation found throughout the entire echocardiographic study, and it represented true regurgitation at the level specified.

Finally, Dr. Frazin stated, in pertinent part, that:

10. Although Dr. Staab did not address the April 20, 2001 echocardiogram in his declaration, Dr. Dlabal and Dr. Frazin each noted that the April 20, 2001 echocardiogram was not evaluable.

4. In the 4-chamber view of the 04/11/02 echocardiogram, I found moderate mitral regurgitation with RJA/LAA ratios of 22% ($6.82 \text{ cm}^2/31.13 \text{ cm}^2$) and 25% ($7.71 \text{ cm}^2/31.13 \text{ cm}^2$). The average of the two RJAs divided by the LAA is 23%.

5. The 6.82 cm^2 RJA was found at 2:42:02 on the DVD, the 7.71 cm^2 RJA was found at 2:42:21, and the LAA was found at 2:53:14.

6. In the 2-chamber view of the 04/11/02 echocardiogram, I again found moderate mitral regurgitation with a RJA/LAA ratio of 31% ($9.89 \text{ cm}^2/31 \text{ cm}^2$).

7. The ratio of 31% was found at 2:47:45 on the DVD.

8. The jets that I identified as showing moderate mitral regurgitation were representative of the level of regurgitation seen throughout echocardiographic study, and they represented true regurgitation at the level specified.

The Trust then issued a final post-audit determination, again denying the Estate's claim. Claimant disputed this adverse determination and requested that the claim proceed to the show cause process established in the Settlement Agreement. See Settlement Agreement § VI.E.7.; PTO No. 2807, Audit Rule 18(c). The Trust then applied to the court for issuance of an Order to show cause why the Estate's claim should be paid. On February 14, 2011, we issued an Order to show cause and referred the matter to the Special Master for further proceedings. See PTO No. 8602 (Feb. 14, 2011).

Once the matter was referred to the Special Master, the Trust submitted its statement of the case and supporting

documentation. The Estate then served a response upon the Special Master. The Trust submitted a reply on June 7, 2011, and the Estate submitted a sur-reply on July 13, 2011. Under the Audit Rules, it is within the Special Master's discretion to appoint a Technical Advisor¹¹ to review claims after the Trust and claimant have had the opportunity to develop the Show Cause Record. See Audit Rule 30. The Special Master assigned a Technical Advisor, Gary J. Vigilante, M.D., F.A.C.C., to review the documents submitted by the Trust and claimant and to prepare a report for the court. The Show Cause Record and Technical Advisor Report are now before the court for final determination. See id. Rule 35.

The issue presented for resolution of this claim is whether the Estate has met its burden of proving that there is a reasonable medical basis for the attesting physician's finding that Mr. Alexander had moderate mitral regurgitation. See id. Rule 24. Ultimately, if we determine that there is no reasonable medical basis for the answer in the Green Form that is at issue, we must affirm the Trust's final determination and may grant such other relief as deemed appropriate. See id. Rule 38(a). If, on the other hand, we determine that there is a reasonable medical

11. A "[Technical] [A]dvisor's role is to act as a sounding board for the judge--helping the jurist to educate himself in the jargon and theory disclosed by the testimony and to think through the critical technical problems." Reilly v. United States, 863 F.2d 149, 158 (1st Cir. 1988). In a case such as this, where conflicting expert opinions exist, it is within the discretion of the court to appoint a Technical Advisor to aid it in resolving technical issues. Id.

basis for the answer, we must enter an Order directing the Trust to pay the claim in accordance with the Settlement Agreement.

See id. Rule 38(b).

In support of its claim, the Estate argues that the Trust should have submitted the April 11, 2002 echocardiogram to audit.¹² According to the Estate, this echocardiogram provides a reasonable medical basis for a finding of moderate mitral regurgitation.

In response, the Trust argues that the Estate does not contend that there is a reasonable medical basis for Dr. Mattleman's representation that the April 20, 2001 echocardiogram demonstrates moderate mitral regurgitation. Instead, the Trust says, the Estate focuses on whether the April 11, 2002 echocardiogram should have been reviewed during audit and that a finding of moderate mitral regurgitation at the time of the April 11, 2002 echocardiogram would entitle the Estate to Matrix Benefits.¹³

The Technical Advisor, Dr. Vigilante, reviewed Mr. Alexander's April 20, 2001 and April 11, 2002 echocardiograms and concluded that there was no reasonable medical basis for

12. The Estate also asserted that the Trust did not comply with Audit Rule 22, which requires the Trust to serve on the Special Master the Trust's audit file and all materials submitted to and/or completed by the auditing cardiologist. As nothing in the record reflects the Trust did not comply with Audit Rule 22, this argument is irrelevant.

13. In its sur-reply, the Estate argues that the Trust is permitted to consider more than one echocardiogram.

Dr. Mattleman's finding of moderate mitral regurgitation.

Specifically, Dr. Vigilante concluded that:

I reviewed the echocardiogram tape accompanying the Special Master Record. A copy of the Claimant's echocardiogram of attestation, dated April 20, 2001, was on this tape.... This study demonstrated the usual echocardiographic views. This study was easily evaluable. The Nyquist limit was borderline low at 50 cm per second at a depth of 21 cm in the parasternal view. The Nyquist limit was low at 43 cm per second at a depth of 22 cm in the apical views.

.... Visually, trace to mild mitral regurgitation was suggested in the parasternal and apical views with a centrally located jet. I digitized the cardiac cycles in the apical four and two chamber views in which the mitral regurgitant jet was best evaluated. I digitally traced and calculated the RJA and LAA. I was able to accurately planimeter the RJA in the mid-portion of systole. In the apical four chamber view, the RJA was a very small jet that was within 1 cm of the mitral annulus. Therefore, only trace mitral regurgitation was present in the apical four chamber view. The LAA in the apical four chamber view was 30.8 cm². In the apical two chamber view, the largest RJA was 3.0 cm². The LAA in the apical two chamber view was 31.5 cm². Therefore, the largest representative RJA/LAA ratio in the apical two chamber view was less than 10%. This ratio never approached 20%. There were no sonographer-determined RJAs or LAAs on this study. This evaluable study was consistent with, at most, mild mitral regurgitation.

....

I reviewed the CD of the Claimant's April 11, 2002 echocardiogram.... This was an adequate quality study with the usual echocardiographic views obtained. There were appropriate Nyquist limits of the color Doppler flow at 68 cm per second at a depth of 24 cm in the parasternal long-axis view and 66 as well as 68 cm per second at a depth

of 24 cm in the apical four and two chamber views.

.... Visually, mild mitral regurgitation was suggested in the apical views with a centrally located jet. I digitized the cardiac cycles in the apical four and two chamber views in which the mitral regurgitant jet was best evaluated. I then digitally traced and calculated the RJA and LAA. I was able to accurately planimeter the RJA in the mid-portion of systole. In the apical four chamber view, the largest representative RJA was 6.0 cm². The LAA in the apical four chamber view was 32.6 cm². Therefore, the largest representative RJA/LAA ratio in the apical four chamber view was 18%. The sonographer measured supposed RJAs of 6.82 cm², 6.14 cm², 6.82 cm², and 7.71 cm² in the apical four chamber view. However, these determinations were inaccurate as they contained some degree of low velocity, non-mitral regurgitant flow. I also digitally traced the RJA in the apical two chamber view. The largest representative RJA in the apical two chamber view was 5.5 cm². The LAA in the apical two chamber view was 32.4 cm². Therefore, the largest representative RJA/LAA ratio in the apical two chamber view was 17%. There are no RJA/LAA ratios that reached the threshold of 20% on this study. The sonographer measured two supposed RJAs of 9.89 cm² and 10.65 cm² in the apical two chamber view. However, these determinations were measurements of backflow at the beginning of systole and not true mitral regurgitation. I reviewed the time frames document in the Declarations of Dr. Dlabal, Dr. Staab, and Dr. Frazin. These time frames demonstrated the inaccurate sonographer-determined RJAs in the apical four chamber and apical two chamber views.

In response to the Technical Advisor Report, the Estate argues that the Technical Advisor "summarily dismissed the findings of three very qualified cardiologists." The Estate also asserts that a finding of moderate mitral regurgitation is within

the "margin for error." Finally, the Estate contends that an "enlarged left atrium does not occur in the presence of trivial [mitral regurgitation]."

After reviewing the entire show cause record, we find claimant's arguments are without merit. The Estate contends the opinions of Dr. Dlabal, Dr. Staab, and Dr. Frazin provide a reasonable medical basis for finding that Mr. Alexander's April 11, 2002 echocardiogram demonstrates moderate mitral regurgitation.¹⁴ We disagree. We are required to apply the standards delineated in the Settlement Agreement and Audit Rules. The context of those two documents leads us to interpret the "reasonable medical basis" standard as more stringent than claimant contends. For example, as we previously explained in PTO No. 2640, conduct "beyond the bounds of medical reason" can include: (1) failing to review multiple loops and still frames; (2) failing to have a Board Certified Cardiologist properly supervise and interpret the echocardiogram; (3) failing to examine the regurgitant jet throughout a portion of systole; (4) over-manipulating echocardiogram settings; (5) setting a low Nyquist limit; (6) characterizing "artifacts," "phantom jets," "backflow" and other low velocity flow as mitral regurgitation; (7) failing to take a claimant's medical history; and (8) overtracing the amount of a claimant's regurgitation. See

14. The Estate does not challenge the Technical Advisor's determination that the April 20, 2001 echocardiogram "was consistent with, at most, mild mitral regurgitation."

Mem. in Supp. of PTO No. 2640 at 9-13, 15, 21-22, 26
(Nov. 14, 2002).

Here, Dr. Vigilante reviewed Mr. Alexander's April 11, 2002 echocardiogram and determined it demonstrated only mild mitral regurgitation. Specifically, he measured representative RJAs in the apical two and four chamber views and concluded that "[t]here are no RJA/LAA ratios that reached the threshold of 20% on this study." Dr. Vigilante also noted that his "left atrial diameter measurements correlate well with [his] LAA determinations of 32.6 cm² in the apical four chamber view and 32.4 cm² in the apical two chamber view."¹⁵

Dr. Vigilante also reviewed the time frames documented in the declarations of Dr. Dlabal, Dr. Staab, and Dr. Frazin. Dr. Vigilante observed that "[t]hese time frames demonstrated the inaccurate sonographer-determined RJAs in the apical four chamber and apical two chamber views." With respect to the sonographer-determined RJAs in the apical four chamber view, Dr. Vigilante explained that "the[] determinations were inaccurate as they contained some degree of low velocity, non-mitral regurgitant flow," while the sonographer-determined RJAs in the apical two chamber view "were measurements of backflow at the beginning of systole and not true mitral

15. Thus, we disagree with the Estate that Mr. Alexander's abnormal left atrial dimension supports a finding of moderate mitral regurgitation.

regurgitation."¹⁶ Such unacceptable practices cannot provide a reasonable medical basis for the resulting diagnosis and representation of moderate mitral regurgitation. To conclude otherwise would allow claimants who do not have moderate or greater mitral regurgitation to receive Matrix Benefits, which would be contrary to the intent of the Settlement Agreement.

The Estate's reliance on a "margin of error," or inter-reader variability, to establish a reasonable medical basis for its claim also is misplaced. The concept of inter-reader variability is already encompassed in the reasonable medical basis standard applicable to claims under the Settlement Agreement. In this instance, a representation cannot be medically reasonable where the Technical Advisor determined the level of mitral regurgitation demonstrated on the echocardiogram did not reach the threshold of 20%. This is particularly true where the Technical Advisor finds that the purported mitral regurgitant jet(s) identified by claimant's expert(s) included backflow rather than true mitral regurgitation. Adopting the Estate's argument that inter-reader variability expands the range of moderate mitral regurgitation and would allow a claimant to recover benefits with an RJA/LAA ratio less than that required by the Settlement Agreement.

16. For this reason as well, we reject the Estate's argument that Dr. Vigilante "summarily dismissed" the declarations of Dr. Dlabal, Dr. Staab, and Dr. Frazin.

For the foregoing reasons, we conclude that the Estate has not met its burden of proving that there is a reasonable medical basis for finding that Mr. Alexander had moderate mitral regurgitation. Therefore, we will affirm the Trust's denial of the Estate's claim for Matrix A-1, Level II benefits and the related derivative claim submitted by Mr. Alexander's spouse.